

General

Title

Thoracic surgery: percentage of patients aged 18 years and older undergoing resection for lung or esophageal cancer who had clinical staging provided prior to surgery.

Source(s)

Society of Thoracic Surgeons (STS). General thoracic surgery database: NQMC measure submission. Chicago (IL): Society of Thoracic Surgeons (STS); 2016 Dec. 31 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of patients aged 18 years and older undergoing resection for lung or esophageal cancer who had clinical staging provided prior to surgery.

Rationale

Clinical staging for esophageal or lung cancer helps to direct appropriate therapy as determined in a multidisciplinary care setting that includes oncologists (medical and radiation), surgeons, radiologists and pathologists dedicated to cancer care.

Evidence for Rationale

Society of Thoracic Surgeons (STS). General thoracic surgery database: NQMC measure submission.

Primary Health Components

Thoracic surgery; lung cancer; esophageal cancer; resection; clinical staging

Denominator Description

Number of patients aged 18 years and older undergoing resection for lung or esophageal cancer (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of all patients aged 18 years and undergoing resection for lung or esophageal cancer who had clinical staging provided prior to surgery (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

General Thoracic Surgery Database (GTSD) participating sites are randomly selected for participation in the Society of Thoracic Surgeons (STS) GTSD Audit, which is designed to evaluate the accuracy, consistency, and comprehensiveness of data collection and ultimately validate the integrity of the data contained in the database. Telligen, formerly the Iowa Foundation for Medical Care, has conducted audits on behalf of STS since 2006. In 2015, ten percent of randomly selected STS GTSD participants (N = 25, an increase from 24 in 2014 and 18 in 2013) were audited. The audit process involves reâ€œabstraction of data for 20 cases records (at least 15 lobectomy and up to 5 esophagectomy) and comparison of 40 STS GTSD V2.2 individual data elements with those submitted to the data warehouse. Agreement rates are calculated for each variable, each variable category and overall. In 2015, the overall aggregate agreement rate was 97.02%, demonstrating that the data contained in the STS GTSD are both comprehensive and highly accurate.

Data Analysis

Aggregate agreement rates were computed for all facilities by calculation of the sum of all facilities' numerators divided by the sum of all facilities' denominators, for each individual variable, each variable category and overall.

Chi-square statistics were calculated to identify any possible relationships between the data collection process variables and agreement rates. Tests where the chi-square statistic had a probability of less than

5% (p less than 0.05) were considered to show statistically significant differences in agreement rate between the levels of the process measure.

Agreement Rate Results

Database validity was evaluated by re-abstraction of defined variables from the medical records and comparison to submitted data. Agreement rates were calculated at the individual variable level, category level and overall. Aggregate agreement rates are presented in the table in the original measure documentation. There were 14,854 total variables abstracted and of those 14,412 variables matched, resulting in an overall agreement rate of 97.02%.

Process Variable Correlation Tables

The relationships between process variables and overall agreement rates were examined and included:

- Facility data collection performed from electronic medical records or a combination of paper and electronic medical records and overall agreement rate
- Facility data collection method (concurrent/retrospective/both) and overall agreement rate
- Data collection performed by a single abstractor or multiple staff and overall agreement rate
- Attendance at the annual data managers' meeting, STS Advances in Quality and Outcomes (AQO) Conference, and overall agreement rate
- Agreed upon abstraction location for data elements documented in multiple locations and overall agreement rate

Relationship between Data Collection Source & Agreement Rate

Facilities using an electronic health record (EHR) for data collection had higher agreement rates, 97.36%, than those facilities using both paper medical records and an EHR, 96.31%. There were no facilities that used paper medical records alone (p less than 0.0004).

Relationship between Data Collection Method & Agreement Rate

Facilities collecting data retrospectively have higher agreement rates, 97.55%, than those facilities collecting data concurrently, 96.18%, or both, 96.38% (p equal to or less than 0.0001).

Relationship between Data Collection Performed by a Single Abstractor or Multiple Staff & Agreement Rate

Facilities with a single individual performing data abstraction have higher agreement rates, 98.02%, than those facilities that have multiple individuals performing data abstraction, 96.24% (p less than 0.0001).

Relationship between Attendance at AQO Conference & Agreement Rate

Facilities having staff attend the annual AQO Conference have higher agreement rates, 97.25%, than those that do not have staff attend, 96.11% (p less than 0.0012).

Relationship between Have an Agreed Upon Location & Agreement Rate

Facilities that utilize an agreed upon location for data elements recorded in multiple locations have higher agreement rates, 97.31%, than facilities that do not utilize an agreed upon location, 93.61% (p less than 0.0001).

In addition, validity is regularly assessed by an expert panel of general thoracic surgeons assembled by the STS General Thoracic Surgery Database Task Force, the STS Quality Measurement Task Force, and the STS Task Force on Quality Initiatives, all of which report to the STS Workforce on National Databases.

Evidence for Extent of Measure Testing

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

36 months

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Institutionalization

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Number of patients aged 18 years and older undergoing resection for lung or esophageal cancer

Denominator Details

Lung cancer (LungCancer – Society of Thoracic Surgeons [STS] General Thoracic Surgery Database [GTSD] sequence number 830) is marked "yes" and category of disease – primary (CategoryPrim – STS GTSD sequence number 1300) is marked as one of the following (International Classification of

Diseases, Ninth Revision [ICD-9], International Classification of Diseases, Tenth Revision [ICD-10]):

Lung cancer, main bronchus, carina (162.2, C34.00)

Lung cancer, upper lobe (162.3, C34.10)

Lung cancer, middle lobe (162.4, C34.2)

Lung cancer, lower lobe (162.5, C34.30)

Lung cancer, location unspecified (162.9, C34.90)

or

Esophageal cancer (EsophCancer – STS GTSD sequence number 1140) is marked "yes" and category of disease – primary (CategoryPrim – STS GTSD sequence number 1300) is marked as one of the following (ICD-9, ICD-10):

Esophageal cancer, lower third (150.5, C15.5)

Esophageal cancer, middle third (150.4, C15.4)

Esophageal cancer, upper third (150.3, C15.3)

Esophageal cancer, esophagogastric junction (cardia) (151.0, C16.0)

Patient has lung cancer (as defined in #1 above) and primary procedure is one of the specific Current Procedural Terminology [CPT] codes for resection (refer to the original measure documentation for specific CPT codes)

or

Patient has esophageal cancer (as defined in #1 above) and primary procedure is one of the specific CPT codes for resection (refer to the original measure documentation for specific CPT codes)

Only analyze the first operation of the hospitalization meeting criteria 1 to 2

Exclusions

None

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of all patients aged 18 years and older undergoing resection for lung or esophageal cancer who had clinical staging provided prior to surgery

Numerator Details: Number of patients undergoing resection for lung or esophageal cancer for whom:

Clinical staging performed for lung cancer (ClinStagDoneLung – Society of Thoracic Surgeons [STS] General Thoracic Surgery Database [GTSD] sequence number 840) is marked "yes"

or

Clinical staging performed for esophageal cancer (ClinStagDoneEsoph – STS GTSD sequence number 1150) is marked "yes"

Exclusions

Unspecified

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Registry data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

The Society of Thoracic Surgeons General Thoracic Surgery Database (GTSD) Major Procedure Data Collection Form Version 2.3

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Standard of Comparison

not defined yet

Identifying Information

Original Title

Recording of clinical stage prior to lung or esophageal cancer resection.

Measure Collection Name

General Thoracic Surgery Measures

Submitter

Society of Thoracic Surgeons - Medical Specialty Society

Developer

Society of Thoracic Surgeons - Medical Specialty Society

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

The Society of Thoracic Surgeons (STS) General Thoracic Surgery Database Task Force. Please contact STS for list of members.

Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Dec

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

Measure Availability

Source not available electronically.

For more information, contact the Society of Thoracic Surgeons (STS) at 633 N. Saint Clair Street, Floor 23, Chicago, IL 60611; Phone: 312-202-5800; Fax: 312-202-5801; Web site: <http://www.sts.org>

NQMC Status

This NQMC summary was completed by ECRI Institute on January 9, 2017. The information was verified by the measure developer on February 7, 2017.

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Production

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